[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0600; Project Identifier AD-2021-01160-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Bell Textron Inc. (type certificate previously held by Bell Helicopter Textron Inc.), Model 204B, 205A, 205A-1, 205B, and 210 helicopters. This proposed AD was prompted by events involving failure of the tail boom attachment structure. This proposed AD would require revising the existing Rotorcraft Flight Manual (RFM) for your helicopter and repetitive inspections of structural components that attach the tail boom to the fuselage. Depending on the results of the inspections, this proposed AD would require removing certain parts from service or re-bonding the structure. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; email productsupport@bellflight.com; or at https://www.bellflight.com/support/contact-support.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0600; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Ameet Shrotriya, Aviation Safety Engineer, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524; phone: (817) 222-5525; email: Ameet.Shrotriya@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0600; Project Identifier AD-2021-01160-R" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Ameet Shrotriya, Aviation Safety Engineer, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524; phone: (817) 222-5525; email: Ameet.Shrotriya@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2021-15-14, Amendment 39-21661 (86 FR 39942, July 26, 2021) (AD 2021-15-14), for various restricted category helicopters. AD 2021-15-14 was prompted by an accident involving a Model UH-1B helicopter and two forced landings involving Model UH-1H and UH-1F helicopters, due to tail boom attachment structure failures. Each of the three events involved a failure of the upper left-hand (LH) tail boom attachment fitting, which is the most heavily loaded of the four tail boom attach points. AD 2021-15-14 requires revising the existing RFM for your helicopter to incorporate pre-flight checks; removing paint and sealant, and cleaning; repetitive inspections of structural components that attach the tail boom to the fuselage; and depending on the outcome of the inspections, repairing or replacing components, or re-bonding the structure. The FAA issued AD 2021-15-14 to address fatigue cracking of tail boom attachment fittings, cap angles, longerons, and bolts. Due to their similarity to the Model UH-1B, UH-1H, and UH-1F helicopters, the FAA has determined that Bell Textron Inc., Model 204B, 205A, 205A-1, 205B, and 210 helicopters are affected by the same unsafe condition. Therefore, the FAA proposes to adopt a new AD for Bell Textron Inc., Model

204B, 205A, 205A-1, 205B, and 210 helicopters. This proposed AD would require revising the existing RFM for your helicopter to incorporate pre-flight checks; removing paint and sealant, and cleaning; repetitive inspections of structural components that attach the tail boom to the fuselage; and depending on the outcome of the inspections, repairing or replacing components, or re-bonding the structure.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information

The FAA reviewed Bell Helicopter Maintenance & Overhaul Instructions BHT-204B-M&O, Revision 13, dated November 10, 2021 and Bell Helicopter Maintenance Manual BHT-205A1-MM-1, Revision 11, dated June 8, 2020. This service information specifies procedures for inspecting the tail boom assembly.

Proposed AD Requirements in this NPRM

This proposed AD would require revising the existing RFM for your helicopter to add before each flight and before the first flight of the day pre-flight checks of the tail boom attachment. Incorporating the RFM revision may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with the proposed AD in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417 or 135.439. This is an exception to the FAA's standard maintenance regulations.

This proposed AD would also require removing excess paint and sealant from, and cleaning, certain tail boom attachment structures; repetitive inspections for scratches, nicks, gouges, tears, corrosion, cracks, bond separation, loose, missing, and smoking rivets, buckling, distortion, number of attachment bolt exposed threads, and attachment bolt movement. This proposed AD would then require repairing any scratches, nicks, gouges, tears, and corrosion within allowable limits or would require removing from service components with scratches, nicks, gouges, tears, and corrosion that exceed

allowable limits, removing from service components with any cracks, buckling, or distortion, and removing from service and replacing loose, missing, or smoking rivets.

Finally, this proposed AD would require re-bonding any structure with dis-bonds, and removing loose bolts and self-locking nuts from service, and replacing them with new bolts and new self-locking nuts. After the first flight following any bolt replacement, retorquing any replaced bolt would be required.

Costs of Compliance

The FAA estimates that this proposed AD would affect 57 helicopters of U.S. registry. Labor costs are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Revising the RFM for your helicopter would take about 0.5 work-hour, for an estimated cost of $43 per helicopter and $2,451 for the U.S. fleet.

Removing excess paint and sealant, and cleaning all eight tail boom attachment fittings would take about 5 work-hours and a nominal materials cost, for an estimated cost of $425 per helicopter per instance and $24,225 for the U.S. fleet per instance.

Inspecting the tail boom structural components and attached hardware would take about 16 work-hours for an estimated cost of $1,360 per helicopter and $77,520 for the U.S. fleet per inspection cycle.

Replacing a tail boom attachment fitting would take about 33 work-hours and parts would cost about $1,500 for an estimated cost of $4,305 per helicopter.

Replacing a tail boom longeron bond assembly would take about 42 work-hours and parts would cost up to about $21,270 for an estimated cost of up to $24,840 per helicopter.

Replacing a fuselage attachment fitting would take about 45 work-hours and parts would cost about $1,838 for an estimated cost of $5,663 per helicopter.

Replacing a fuselage cap angle would take about 42 work-hours and parts would cost about $1,827 for an estimated cost of $5,397 per helicopter.

Replacing an attachment bolt and self-locking nut would take about 1 work-hour and parts would cost about $313 for an estimated cost of $398 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive: **Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.)**: Docket No. FAA-2022-0600; Project Identifier AD-2021-01160-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Inc. (type certificate previously held by Bell Helicopter Textron Inc.) Model 204B, 205A, 205A-1, 205B, and 210 helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) 5302, Rotorcraft Tail Boom.

(e) Unsafe Condition

This AD was prompted by an accident and incidents involving failure of the tail boom attachment structure. The FAA is issuing this AD to address fatigue cracking of tail boom attachment fittings, cap angles, longerons, and bolts. The unsafe condition, if not addressed, could result in separation of the tail boom from the helicopter and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Before further flight, revise the limitations section of the existing Rotorcraft Flight Manual (RFM) for your helicopter by adding the information in Figure 1 to paragraph (g)(1) of this AD or by inserting a copy of this AD. The action required by this paragraph may be done by the owner/operator (pilot) holding at least a private pilot

certificate and must be entered into the aircraft records showing compliance with this AD by following 14 CFR 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417or 135.439.

PRE-FLIGHT TAIL BOOM ATTACHMENT CHECK

(1) Before each flight, use two hands to push on the tail boom at the third vertical rivet line aft of the trailing edge of the elevator to check for looseness of the tail boom. Gradually apply and relieve pressure using body weight a minimum of three times in each of the following directions: inboard pushing from the left; inboard pushing from the right; and upward pushing from the bottom. If there is any looseness, further flight is prohibited until looseness is repaired and the helicopter is approved for return to service.

Note 1 to paragraph (1) of this check: This check is not required if the tail boom cannot be reached from ground level.

(2) Before the first flight of each day: with the oil cooler/baggage compartment door on the right hand side of the helicopter open to gain access to the interior of the tail boom, and with an additional person applying and relieving pressure as detailed in paragraph (1) of this check and using a flashlight, first, check for upper left hand attach bolt movement by observing the torque stripe if present and attempting to rotate the bolt by hand, and second, check the upper left hand tail boom attach structure for any loose and missing rivets, and any cracks in the following areas: on the fuselage side, check the fitting and the cap angle running forward from the fitting for any cracks, paying particular attention to the fitting section near the rivets closest to the attach bolt and the cap angle rivets next to the fitting; and on the tail boom side, check the fitting and the longeron running aft from the fitting for any cracks, paying particular attention to the fitting section near the rivets closest to the attach bolt. If the attach bolt torque stripe is no longer aligned or the bolt rotates by hand, further flight is prohibited until the attach bolt and self-locking nut are removed from service, replaced with a new bolt and new self-locking nut, and the helicopter is approved for return to service. If there are any loose or missing rivets, or cracks, further flight is prohibited until loose and missing rivets, and cracked components are removed from service and the helicopter is approved for return to service.

Note 2 to paragraph (2) of this check: It is not required to push on the tail boom if it cannot be reached from ground level while checking for attach bolt movement, loose and missing rivets, and cracks.

Figure 1 to Paragraph (g)(1)

(2) Within 25 hours time-in-service (TIS):

(i) Open the oil cooler/baggage compartment door on the right hand side of the helicopter to gain access to the interior of the tail boom.

(ii) Remove paint and stray sealant and clean the eight attach fittings (four on the tail boom side and four on the fuselage side). Remove paint and stray sealant and clean the four cap angles, forward of the fuselage fittings, for at least 12 inches from the end of the fittings. Remove paint and stray sealant and clean the four longerons, aft of the tail boom fittings, for at least 12 inches from the end of the fittings. It is only necessary to remove the topcoat. Primer may be left in place and edge and fillet sealant may be left in place. If any primer or edge or fillet sealant is removed, before further flight, reapply the removed primer and sealant.

Note 1 to paragraph (g)(2)(ii): On some models, the baggage compartment floor and net must be removed to gain access to the lower fuselage attach fittings and cap angles.

(iii) With an additional person pushing on the tail boom at the third vertical rivet line aft of the trailing edge of the elevator with both hands and gradually applying and relieving pressure using body weight a minimum of three times in each of the following directions: inboard pushing from the left; inboard pushing from the right; and upward pushing from the bottom; and using a bright light and borescope, inspect each of the four tail boom attach structures for cracks, bond separation, and loose rivets. On the fuselage side, inspect the fittings and the cap angles running forward from the fittings, paying particular attention to the fitting sections near the rivets closest to the attach bolts and the cap angle rivets next to the fittings. On the tail boom side, inspect the fittings and the longerons running aft from the fittings, paying particular attention to the fitting sections near the rivets closest to the attach bolts. Without pushing on the tail boom, and using a bright light and borescope, inspect each of the four tail boom attach structures for scratches, nicks, gouges, tears, corrosion, buckling, and distortion, and for loose, missing, and smoking rivets. If there are any scratches, nicks, gouges, tears, or corrosion within allowable limits, before further flight, repair the affected components. If there are any scratches, nicks, gouges, tears, or corrosion that exceed allowable limits, or any cracks, buckling, or distortion, or loose, missing, or smoking rivets, before further flight, remove the affected components from service. If there is any bond separation, before further flight, re-bond the affected components.

Note 2 to paragraph (g)(2)(iii): It is not required to push on the tail boom if it cannot be reached from ground level while inspecting for cracks, bond separation, and loose rivets.

(iv) Inspect the tail boom attach bolts for exposed threads. If there is less than one full thread or more than three threads exposed, before further flight, remove the bolt and self-locking nut from service and replace with a new bolt and new self-locking nut.

(v) Inspect each of the four tail boom attach bolts for movement by either applying the required installation torque in the tightening direction only, or by inspecting for torque stripe misalignment if present and attempting to rotate the bolt by hand. If a bolt is under-torqued, a torque stripe is misaligned, or a bolt moves, before further flight, remove the bolt and self-locking nut from service and replace with a new bolt and new self-locking nut.

(vi) After the first flight following any bolt replacement as required by paragraph (g)(2)(iv) or (v) of this AD, retorque any replaced bolt by applying torque in accordance with the existing maintenance instructions for your helicopter in the tightening direction only and then apply a torque stripe on the bolt head.

(3) Within 25 hours TIS after the effective date of this AD, and thereafter at intervals not to exceed 25 hours TIS, perform the actions required by paragraphs (g)(2)(ii) through (vi) of this AD at the upper left-hand tail boom attach points.

(4) Within 25 hours TIS after the effective date of this AD, and thereafter at intervals not to exceed 100 hours TIS, perform the actions required by paragraphs (g)(2)(ii) through (vi) of this AD at all four tail boom attach points.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, DSCO Branch, Compliance & Airworthiness Division, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. You may email your request to: 9-ASW-190-COS@faa.gov@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

For more information about this AD, contact Ameet Shrotriya, Aviation Safety Engineer, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524; phone: (817) 222-5525; email: Ameet.Shrotriya@faa.gov.

Issued on May 31, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,

Compliance & Airworthiness Division,

Aircraft Certification Service.

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